

List of Plants

C CAMPHOR

CAS Number

464,482

Chemid

CAMPHOR

Dosage

LD=1,200 mg/kg (ipr rat)	Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin.
LD _{lo} =900 (ipr rat)	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
LD _{lo} =1,000 mg/chd	Martindale's 28th
LD ₅₀ =3,000 (ipr mus)	
LD _{lo} =50	J. Nat. Prod. 50: 1017.

*Unless otherwise noted all references are to Duke, James A. 1992. Handbook of phytochemical constituents of GRAS herbs and other economic plants. Boca Raton, FL. CRC Press.

Plant	Plant Part	Low PPM	High PPM	StdDev	*Reference
Achillea millefolium	Leaf	20.0	2880.0	-0.18	*
Acinos alpinus	Shoot	--	1.0	-0.16	Velasco-Negueruela,A., Perez-Alonso,M.J., Jiminez,S.M. and Garcia,F.M. 1993. The Volatile Constituents of Acinus alpinus (L.) Moench ssp. meridionalis (Nyman). P.W. Ball Growing in Spain. Flav. & Frag. J. 8:127-130.)
Acinos alpinus	Shoot	--	1.0	-0.16	Velasco-Negueruela,A., Perez-Alonso,M.J., Jiminez,S.M. and Garcia,F.M. 1993. The Volatile Constituents of Acinus alpinus (L.) Moench ssp. meridionalis (Nyman). P.W. Ball Growing in Spain. Flav. & Frag. J. 8:127-130.)
Acorus calamus	Rhizome	--	--		Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
Alpinia galanga	Rhizome	--	--		*
Alpinia galanga	Rhizome Essent. Oil	--	--		*
Alpinia officinarum	Rhizome	--	--		Wealth of India.
Ammi visnaga	Essential Oil	--	--		*
Amomum compactum	Seed	--	--		Duke, J. A. and duCellier, J. L. 1993. CRC Handbook of Alternative Cash Crops. CRC Press. Boca Raton, FL 33431. 536 pp. US \$312.50.
Anethum graveolens	Root	--	--		*
Annona squamosa	Plant	--	--		*
Artemisia dracunculus	Leaf Essent. Oil	--	20000.0	-0.72	*
Artemisia vulgaris	Plant	--	--		Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
Artemisia herba-alba	Plant	580.0	773.0	-0.26	*
Artemisia salsoloides	Shoot	--	210000.0	7.73	V. Kaul, P. Weyerstahl, H. Wahlberg, H. Marschall, (1992); Volatile constituents of the essential oil and the absolute of Artemisia salsoloides Willd. from Ladakh, Flavour and Fragrance journal, Vol.7, 299-305.
Artemisia dracunculus	Essential Oil	--	--		*
Artemisia dracunculus	Shoot	20.0	200.0	-0.15	*

<i>Calamintha nepeta</i>	Leaf	--	1.0	-0.25	Akgul, A., De Pooter, H.L., and De Buyck, L.F. 1991. The Essential Oils of <i>Calamintha nepeta</i> subsp. <i>glandulosa</i> and <i>Ziziphora clinopodioides</i> from Turkey. <i>J. Ess. Oil Res.</i> , 3: 7-10.
<i>Cannabis sativa</i>	Leaf Essent. Oil	--	--		*
<i>Cannabis sativa</i>	Plant	--	--		Turner, C. E., El Sohly, M. A., Boeren, E. G. 1980. Constituents of <i>Cannabis sativa</i> L. XVII. A Review of the Natural Constituents. <i>J Natural Products</i> , 43: 169-234.
<i>Cannabis sativa</i>	Essential Oil	--	--		*
<i>Capsicum frutescens</i>	Fruit	--	--		*
<i>Centella asiatica</i>	Essential Oil	--	--		*
<i>Chrysanthemum x morifolium</i>	Flower	--	--		Wealth of India.
<i>Chrysanthemum parthenium</i>	Shoot	--	640.0	-0.13	Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. The Essential Oil of <i>Tanacetum parthenium</i> (L.) Schultz-Bip. <i>Flavor and Fragrance Journal</i> 11(6): 367-71.
<i>Cinnamomum verum</i>	Root Bark	--	--		*
<i>Cinnamomum camphora</i>	Leaf	96.0	220000.0	4.68	*
<i>Cinnamomum verum</i>	Stem Bark	--	--		*
<i>Cinnamomum verum</i>	Essential Oil	--	--		*
<i>Cinnamomum verum</i>	Bark Essent. Oil	--	--		*
<i>Cinnamomum verum</i>	Plant	--	--		*
<i>Cinnamomum verum</i>	Leaf	--	5.0	-0.25	*
<i>Cleonia lusitanica</i>	Leaf	5.0	7.0	-0.25	Perez-Alonso, M., Velasco-Negueruela, A., and Lopez-Saez, A. 1991. The Essential Oil of <i>Cleonia lusitanica</i> . <i>J. Ess. Oil Res.</i> , 3: 441-442.
<i>Coleus barbatus</i>	Stem Essent. Oil	--	2500.0		Jim Duke's personal files.
<i>Coleus barbatus</i>	Leaf Essent. Oil	--	2500.0	-0.83	Jim Duke's personal files.
<i>Coriandrum sativum</i>	Seed Essent. Oil	--	58300.0	1.0	*
<i>Coriandrum sativum</i>	Fruit	100.0	1300.0	1.65	*
<i>Coriandrum sativum</i>	Essential Oil	--	--		*
<i>Crocus sativus</i>	Silk Stigma Style	--	--		*
<i>Curcuma longa</i>	Rhizome Essent. Oil	--	600.0	-1.0	*
<i>Curcuma longa</i>	Tuber	--	--		*
<i>Cymbopogon nardus</i>	Plant	15.0	60.0	-0.62	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Daucus carota</i>	Seed	--	--		*
<i>Elettaria cardamomum</i>	Fruit	7.0	20.0	-0.87	Duke, J. A. and duCellier, J. L. 1993. CRC Handbook of Alternative Cash Crops. CRC Press. Boca Raton, FL 33431. 536 pp. US \$312.50.
<i>Elsholtzia cristata</i>	Shoot	--	4.0	-0.16	Kobold, U., Vostrowsky, O., Bestmann, H.J., Bisht, J.C., Pant, A.K., Melkani, A.B. and Mathela, C.S. 1987. Terpenoids from <i>Elsholtzia</i> Species: II. Constituents of Essential Oil from a New Chemotype of <i>Elsholtzia cristata</i> . <i>Planta Medica</i> 1987: 268-271.
<i>Foeniculum vulgare</i>	Seed	10.0	180.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Foeniculum vulgare</i>	Fruit	10.0	180.0	-0.55	*

<i>Hedeoma reverchonii</i>	Plant	--	31.0	-0.64	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Hedeoma drummondii</i>	Plant	1.0	786.0	-0.25	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Helianthus annuus</i>	Flower	--	--		Rizk, A.F.M. and Al-Nowaihi, A.S., The Phytochemistry of the Horticultural Plants of Qatar, Scientific and Applied Research Centre, University of Qatar.
<i>Hyptis suaveolens</i>	Shoot	--	12.0	-0.16	Mallavarapu, G.R., Ramesh, S., Kaul, P.N., Bhattacharya, A.K., and Rao, B.R.R. 1993. The Essential Oil of <i>Hyptis suaveolens</i> (L.) Poit. J. Ess. Oil Res. 5: 321.
<i>Hyptis suaveolens</i>	Shoot	--	12.0	-0.16	Mallavarapu, G.R., Ramesh, S., Kaul, P.N., Bhattacharya, A.K., and Rao, B.R.R. 1993. The Essential Oil of <i>Hyptis suaveolens</i> (L.) Poit. J. Ess. Oil Res. 5: 321.
<i>Hyssopus officinalis</i>	Essential Oil	--	--		*
<i>Hyssopus officinalis</i>	Leaf	10.0	3280.0	-0.18	*
<i>Hyssopus officinalis</i>	Flower	125.0	1240.0	-0.4	*
<i>Juniperus communis</i>	Fruit	1.0	7.0	-0.89	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Juniperus communis</i>	Essential Oil	--	--		*
<i>Lantana camara</i>	Shoot	--	1.0	-0.16	*
<i>Larrea tridentata</i>	Plant	--	--		*
<i>Laurus nobilis</i>	Plant	--	--		*
<i>Laurus nobilis</i>	Leaf Essent. Oil	--	--		*
<i>Lavandula angustifolia</i>	Flower	--	--		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Lavandula x hybrida</i>	Shoot	660.0	890.0	-0.12	Tucker, A.O., Maciarello, M.J., Angell, S., Espaillat, J.R., and French, E.C. 1993. The Essential Oil of <i>Lavandula x hybrida</i> Balb. ex Ging., a Distinct Hybrid from <i>L. x heterophylla</i> Poir. (Labiatae). J. Ess. Oil Res. 5: 443-445.
<i>Lavandula x intermedia</i>	Plant	542.0	1620.0	0.17	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Lavandula latifolia</i>	Plant	480.0	3300.0	1.02	*
<i>Lavandula sp</i>	Shoot	--	--		Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
<i>Lepechinia calycina</i>	Plant	--	875.0	-0.21	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Levisticum officinale</i>	Root	1.0	10.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Lippia dulcis</i>	Plant	--	--		*
<i>Lippia alba</i>	Plant	--	--		Grenand, P., Moretti, C., and Jacquemin, H. 1987. Pharmacopees Traditionnelles en Guyane. I'ORSTROM, Paris. 569 pp.
<i>Magnolia fargesii</i>	Flower	--	--		*
<i>Magnolia kobus</i>	Flower	--	--		*
<i>Melaleuca alternifolia</i>	Leaf	--	0.001	-0.25	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Micromeria croatica</i>	Leaf	--	140.0	-0.25	Kirimer, N., Ozek, T., and Baser, K.H.C. 1991. Composition of the Essential Oil of <i>Micromeria congesta</i> . J. Ess. Oil Res., 3: 387-393.
<i>Micromeria thymifolia</i>	Leaf	--	10.0	-0.25	Kirimer, N., Ozek, T., and Baser, K.H.C. 1991. Composition of the Essential Oil of <i>Micromeria congesta</i> . J. Ess. Oil Res., 3: 387-393.
<i>Micromeria myrtifolia</i>	Shoot	--	0.5	-0.16	Ozek, T., Kirimer, N., and Baser, K.H.C. 1992. Composition of the Essential Oil of <i>Micromeria myrtifolia</i> Boiss. et Hohen. J. Ess. Oil Res., 4: 79-80.
<i>Micromeria juliana</i>	Leaf	--	65.0	-0.25	Kirimer, N., Ozek, T., and Baser, K.H.C. 1991. Composition of the Essential Oil of <i>Micromeria congesta</i> . J. Ess. Oil Res., 3: 387-393.
<i>Myristica fragrans</i>	Seed Essent. Oil	--	34000.0	-1.0	*
<i>Myrtus communis</i>	Plant	12.0	18.0	-0.64	*
<i>Nepeta cataria</i>	Plant	16.0	80.0	-0.61	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Nepeta racemosa</i>	Shoot	--	2.0	-0.16	Baser, K.H.C., Ozek, T., Akgul, A. and Tumen, G. 1993. Composition of the Essential Oil of <i>Nepeta racemosa</i> Lam. J. Ess. Oil Res. 5: 215-7.

					racemosa Lam. J. Ess. Oil Res. 5: 215-7.
Ocimum tenuiflorum	Leaf	--	--		=ICMR(Indian Council of Medical Research).1976.Medicinal Plants of India.Vol.1.Indian Council of Med. Res.Cambridge Printing Works, New Delhi.487 pp;ICMR.1987.Medicinal Plants of India.Vol.2.Indian Council of Med. Res.Cambr. Printing Works,New Delhi.600pp
Ocimum canum	Shoot	1900.0	4550.0	0.01	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Ocimum basilicum	Essential Oil	2100.0	7200.0	-1.19	*
Ocimum gratissimum	Plant	2.0	35.0	-0.64	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Ocimum kilimandscharicum	Shoot	0.1	7000.0	0.11	Charles, D.J., and Simon, J.E. 1992. Essential Oil Constituents of Ocimum killimandscharicum Guerke. J. Ess. Oil Res., 4: 125-128.
Ocimum basilicum	Shoot Essent. Oil	--	4500.0	-1.0	*
Ocimum kilimandscharicum	Flower	2650.0	5070.0	1.38	Charles, D.J., and Simon, J.E. 1992. Essential Oil Constituents of Ocimum killimandscharicum Guerke. J. Ess. Oil Res., 4: 125-128.
Ocimum basilicum	Plant	2.0	31.0	-0.64	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
Ocimum basilicum	Leaf Essent. Oil	--	10000.0	-0.78	*
Origanum vulgare	Plant	--	40.0	-0.63	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Origanum onites	Shoot	--	--	-0.16	Biondi, D., Cianci, P., Geraci, C. and Ruberto, G. 1993. Antimicrobial Activity and Chemical Composition of Essential Oils from Sicilian Aromatic Plants. Flav. & Frag. J. 8: 331-7.
Origanum syriacum	Shoot	--	0.1	-0.16	Fleisher, A. & Fleisher, Z. 1991. Chemical Composition of Origanum syriacum L. Essential Oil. J. Ess. Oil Res. 3: 121-123.
Origanum sipyleum	Shoot	--	13.0	-0.16	Baser, K.H.C., Ozek, T., Kurkcuoglu, M. and Tumen, G. 1992. Composition of the Essential Oil of Origanum sipyleum of Turkish Origin. J. Ess. Oil Res. 4: 139-142.
Origanum creticum	Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Origanum syriacum	Shoot	--	--		Fleisher, A. & Fleisher, Z. 1991. Chemical Composition of Origanum syriacum L. Essential Oil. J. Ess. Oil Res. 3: 121-123.
Origanum sipyleum	Shoot	--	15.0	-0.16	Baser, K.H.C., Ozek, T., Kurkcuoglu, M. and Tumen, G. 1992. Composition of the Essential Oil of Origanum sipyleum of Turkish Origin. J. Ess. Oil Res. 4: 139-142.
Origanum sipyleum	Shoot	--	10.0	-0.16	Baser, K.H.C., Ozek, T., Kurkcuoglu, M. and Tumen, G. 1992. Composition of the Essential Oil of Origanum sipyleum of Turkish Origin. J. Ess. Oil Res. 4: 139-142.
Origanum syriacum	Shoot	--	--	-0.16	Fleisher, A. & Fleisher, Z. 1991. Chemical Composition of Origanum syriacum L. Essential Oil. J. Ess. Oil Res. 3: 121-123.
Origanum sipyleum	Shoot	--	15.0	-0.16	Baser, K.H.C., Ozek, T., Kurkcuoglu, M. and Tumen, G. 1992. Composition of the Essential Oil of Origanum sipyleum of Turkish Origin. J. Ess. Oil Res. 4: 139-142.
Peumus boldus	Leaf	1.6	150.0	-0.25	*
Pimenta racemosa	Leaf	--	240.0	-0.24	*
Pimpinella anisum	Seed Essent. Oil	--	--		*
Pinus sylvestris	Leaf Essent. Oil	--	--		*
Piper nigrum	Fruit	--	--		*
Piper auritum	Leaf	--	--		Tramil
Polygonum hydropiper	Essential Oil	--	--		*
Ptychopetalum olacoides	Root Essent. Oil	--	62000.0		Uber Bucek, E., Fournier, G., Dadoun, H. 1987. Volatile Constituents of Ptychopetalum olacoides Root Oil. Planta Med. 53, 2: 231.
Pycnanthemum montanum	Shoot	3395.0	3880.0	-0.01	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Pycnanthemum tenuifolium	Shoot	4.0	40.0	-0.16	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Pycnanthemum clinopodioides	Shoot	42.0	44.0	-0.16	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Pycnanthemum pycnanthemooides	Shoot	78.0	116.0	-0.15	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Rhododendron	Plant	--	--		*

<i>Rosmarinus x mendizabalii</i>	Shoot	850.0	1475.0	-0.1	Soriano Cano, M.C., Sotomayor Sanchez, J.A., Sanchez Gomez, P. and Garcia Vallejo, M.C. 1993. Essential Oils of the Rosmarinus eriocalyx-tomentosus Complex in Southeast Spain. <i>J. Ess. Oil Res.</i> 5: 243-246.
<i>Rosmarinus eriocalyx</i>	Shoot	1590.0	2670.0	-0.06	Soriano Cano, M.C., Sotomayor Sanchez, J.A., Sanchez Gomez, P. and Garcia Vallejo, M.C. 1993. Essential Oils of the Rosmarinus eriocalyx-tomentosus Complex in Southeast Spain. <i>J. Ess. Oil Res.</i> 5: 243-246.
<i>Rosmarinus officinalis</i>	Resin, Exudate, Sap	--	--		*
<i>Rosmarinus officinalis</i>	Plant	60.0	5800.0	2.29	*
<i>Rosmarinus officinalis</i>	Shoot	1885.0	3920.0	-0.01	Soriano Cano, M.C., Sotomayor Sanchez, J.A., Sanchez Gomez, P. and Garcia Vallejo, M.C. 1993. Essential Oils of the Rosmarinus eriocalyx-tomentosus Complex in Southeast Spain. <i>J. Ess. Oil Res.</i> 5: 243-246.
<i>Rosmarinus x lavandulaceus</i>	Shoot	330.0	2335.0	-0.07	Soriano Cano, M.C., Sotomayor Sanchez, J.A., Sanchez Gomez, P. and Garcia Vallejo, M.C. 1993. Essential Oils of the Rosmarinus eriocalyx-tomentosus Complex in Southeast Spain. <i>J. Ess. Oil Res.</i> 5: 243-246.
<i>Rosmarinus officinalis</i>	Leaf Essent. Oil	--	121000.0	-0.09	*
<i>Rosmarinus officinalis</i>	Leaf	--	160.0	-0.25	Soliman, F.M., El-Kashoury, M.M., Fathy, M.M. and Gonaid, M.H. 1994. Analysis and Biological Activity of the Essential Oil of <i>Rosmarinus officinalis</i> L. from Egypt. <i>Flavour and Fragrance J.</i> 9: 29-33.
<i>Rosmarinus officinalis</i>	Essential Oil	18000.0	93000.0	-0.69	*
<i>Rosmarinus officinalis</i>	Shoot	320.0	1410.0	-0.1	Soriano Cano, M.C., Sotomayor Sanchez, J.A., Sanchez Gomez, P. and Garcia Vallejo, M.C. 1993. Essential Oils of the Rosmarinus eriocalyx-tomentosus Complex in Southeast Spain. <i>J. Ess. Oil Res.</i> 5: 243-246.
<i>Rosmarinus tomentosus</i>	Shoot	2745.0	4455.0	0.01	Soriano Cano, M.C., Sotomayor Sanchez, J.A., Sanchez Gomez, P. and Garcia Vallejo, M.C. 1993. Essential Oils of the Rosmarinus eriocalyx-tomentosus Complex in Southeast Spain. <i>J. Ess. Oil Res.</i> 5: 243-246.
<i>Rosmarinus eriocalyx</i>	Shoot	1590.0	2670.0	-0.06	Soriano Cano, M.C., Sotomayor Sanchez, J.A., Sanchez Gomez, P. and Garcia Vallejo, M.C. 1993. Essential Oils of the Rosmarinus eriocalyx-tomentosus Complex in Southeast Spain. <i>J. Ess. Oil Res.</i> 5: 243-246.
<i>Rosmarinus officinalis</i>	Shoot Essent. Oil	--	76300.0	1.0	*
<i>Rosmarinus officinalis</i>	Shoot	--	1030.0	-0.12	Tucker, A. O. and Maciarello, M. J. 1998. The essential oils of some rosemary cultivars. <i>Flavor and Fragrance Journal</i> , 1: 137-142. 1986.
<i>Rosmarinus officinalis</i>	Leaf	--	595.0	-0.24	Soliman, F.M., El-Kashoury, M.M., Fathy, M.M. and Gonaid, M.H. 1994. Analysis and Biological Activity of the Essential Oil of <i>Rosmarinus officinalis</i> L. from Egypt. <i>Flavour and Fragrance J.</i> 9: 29-33.
<i>Salvia officinalis</i>	Leaf Essent. Oil	44000.0	458000.0	2.01	*
<i>Salvia triloba</i>	Plant	160.0	5040.0	1.91	*
<i>Salvia gilliesii</i>	Shoot	--	60.0	-0.16	Velasco-Negueruela, A. et al. 1993. The Essential Oil of <i>Salvia gilliesii</i> Benth. <i>J. Ess. Oil Res.</i> 5: 319-320.
<i>Salvia officinalis</i>	Pericarp Essent. Oil	--	229000.0		*
<i>Salvia sclarea</i>	Plant	--	--		Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
<i>Salvia canariensis</i>	Leaf	--	28.0	-0.25	Casnigueral,S., Iglesias,J., Vila,R., Virgili,A. and Ibanez,C.1994. The Essential Oil from Leaves of <i>Salvia canariensis</i> L. <i>Flav. & Frag. J.</i> 9:201-204. S. Canigueral, Facultat de Farmacia, Universitat de Barcelona, Ave.Diagonal 643,E-08028, Barcelone Spain
<i>Salvia officinalis</i>	Essential Oil	76000.0	305000.0	0.54	*
<i>Salvia officinalis</i>	Leaf	--	9324.0	-0.04	*
<i>Sassafras albidum</i>	Leaf	--	--	-0.25	*
<i>Satureja obovata</i>	Shoot	2510.0	4025.0	-0.01	Fitoterapia No.60: 277.
<i>Satureja obovata</i>	Leaf	--	2660.0	-0.19	Arrebola, M.L., Navaro, M.C., Jimenez, J. and Ocana, F.A. 1994. Variations in Yield and Composition of the Essential Oil of <i>Satureja obovata</i> . <i>Phytochemistry</i> 35(1): 83.
<i>Satureja montana</i>	Plant	5.0	75.0	-0.62	*
<i>Satureja obovata</i>	Leaf	--	2040.0	-0.2	Arrebola, M.L., Navaro, M.C., Jimenez, J. and Ocana, F.A. 1994. Variations in Yield and Composition of the Essential Oil of <i>Satureja obovata</i> . <i>Phytochemistry</i> 35(1): 83.
<i>Satureja obovata</i>	Leaf	--	2040.0	-0.2	Arrebola, M.L., Navaro, M.C., Jimenez, J. and Ocana, F.A. 1994. Variations in Yield and Composition of the Essential Oil of <i>Satureja obovata</i> . <i>Phytochemistry</i> 35(1): 83.

					Verlag, Berlin, 1969-1979.
Satureja obovata	Leaf	--	1225.0	-0.22	Arrebola, M.L., Navaro, M.C., Jimenez, J. and Ocana, F.A. 1994. Variations in Yield and Composition of the Essential Oil of Satureja obovata. <i>Phytochemistry</i> 35(1): 83.
Satureja douglasii	Plant	2392.0	5941.0	2.37	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Sideritis athoa	Shoot	--	0.5	-0.16	Ozek, T., Baser, K.H.C. and Tumen, G. 1993. The Essential Oil of Sideritis athoa Papanikolaou Et Kokkinii. <i>J. Ess. Oil Res.</i> 5: 669-670.
Sideritis scardica	Shoot	--	75.0	-0.15	Menkovic, N., et al. 1991. The Essential Oil of Sideritis scardica. <i>Pl. Med.</i> 57. Suppl. 2. pp. A137-A132.
Sideritis pauli	Shoot	--	3.0	-0.16	Burzaco, A., Velasco-Negueruela, A. and Perez-Alonso, M.J. 1992. Essential Oil Analysis of Sideritis pauli Pau. <i>FFJ7:</i> 47-8. 1992.
Stevia rebaudiana	Shoot	--	17.0	-0.16	Kinghorn, A. D. (Ed.) 2002. Medicinal and Aromatic Plants - Industrial Profiles. Stevia. Taylor & Francis. New York, NY. 211 pp.
Stevia rebaudiana	Flower	--	17.0	-0.97	Kinghorn, A. D. (Ed.) 2002. Medicinal and Aromatic Plants - Industrial Profiles. Stevia. Taylor & Francis. New York, NY. 211 pp.
Tanacetum parthenium	Shoot	--	24.0	-0.16	*
Tanacetum parthenium	Leaf Essent. Oil	--	201000.0	0.41	*
Tanacetum parthenium	Essential Oil	--	442000.0	1.34	*
Tanacetum parthenium	Fruit Essent. Oil	--	189000.0		*
Tanacetum vulgare	Leaf	--	1800.0	-0.21	*
Teucrium polium	Shoot	--	1.0	-0.16	Perez-Alonso, M.J. Velasco-Negueruela, A. and Lopez-Saez, J.A. 1993. The Essential Oils of Two Iberian Teucrium Species. <i>J. Ess. Oil Res.</i> 5: 397-402.
Teucrium pseudoscorodonia	Shoot	--	0.1	-0.16	Velasco-Negueruela, A. and Perez-Alonso, M.J. 1990. The Volatiles of Six Teucrium Species from the Iberian Peninsula and the Balearic Islands. <i>Phytochemistry</i> 29(4): 1165-9.
Teucrium oxylepis	Shoot	--	0.06	-0.16	Velasco-Negueruela, A. and Perez-Alonso, M.J. 1990. The Volatiles of Six Teucrium Species from the Iberian Peninsula and the Balearic Islands. <i>Phytochemistry</i> 29(4): 1165-9.
Teucrium polium	Plant	--	--		Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
Teucrium gnaphalodes	Shoot	--	6.0	-0.16	Perez-Alonso, M.J. Velasco-Negueruela, A. and Lopez-Saez, J.A. 1993. The Essential Oils of Two Iberian Teucrium Species. <i>J. Ess. Oil Res.</i> 5: 397-402.
Teucrium scorodonia	Shoot	--	0.28	-0.16	Velasco-Negueruela, A. and Perez-Alonso, M.J. 1990. The Volatiles of Six Teucrium Species from the Iberian Peninsula and the Balearic Islands. <i>Phytochemistry</i> 29(4): 1165-9.
Teucrium oxylepis	Shoot	--	0.22	-0.16	Velasco-Negueruela, A. and Perez-Alonso, M.J. 1990. The Volatiles of Six Teucrium Species from the Iberian Peninsula and the Balearic Islands. <i>Phytochemistry</i> 29(4): 1165-9.
Teucrium salviastrum	Shoot	--	--		Velasco-Negueruela, A. and Perez-Alonso, M.J. 1990. The Volatiles of Six Teucrium Species from the Iberian Peninsula and the Balearic Islands. <i>Phytochemistry</i> 29(4): 1165-9.
Teucrium asiaticum	Shoot	--	0.1	-0.16	Velasco-Negueruela, A. and Perez-Alonso, M.J. 1990. The Volatiles of Six Teucrium Species from the Iberian Peninsula and the Balearic Islands. <i>Phytochemistry</i> 29(4): 1165-9.
Thuja occidentalis	Branches	--	--		*
Thymus funkii	Shoot	--	1135.0	-0.11	Vila, R., et al. 1995. Composition and study of the variability of the essential oil of Thymus funkii Cousson. <i>Flav. & Fragr. J.</i> 10(6): 379-383.
Thymus zygis	Shoot	--	19.0	-0.16	Jimenez, J., Navarro, M.C., Montilla, M.P., Martin, A. and Martinez, A. 1993. Thymus zygis Oil: Its Effects on CCl4-Induced Hepatotoxicity and Free Radical Scavenger Activity. <i>JEO5:</i> 153-8.
Thymus longicaulis	Shoot	--	--	-0.16	Baser, K.H.C., Ozek, T., Kirimer, N. and Tumen, G. 1993. The Occurrence of Three Chemotypes of Thymus longicaulis C. Presl subsp. longicaulis in the same Population. <i>J. Ess. Oil Res.</i> 5: 291-5.
Thymus masticina	Plant	1.0	450.0	-0.43	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Thymus cilicicus	Shoot	--	940.0	-0.12	Tumen, G., Koyuncu, M., Kirimer, N., and Baser, K.H.C. 1994. Composition of the Essential Oil of Thymus cilicicus Boiss. & Bal. <i>J. Ess. Oil Res.</i> 6: 97-8.
Thymus longicaulis	Shoot	--	3.0	-0.16	Baser, K.H.C., Ozek, T., Kirimer, N. and Tumen, G. 1993. The Occurrence of Three Chemotypes of Thymus longicaulis C. Presl subsp. longicaulis in the same Population. <i>J. Ess. Oil Res.</i> 5: 291-5.
Thymus x citriodorus	Plant	--	20.0	-0.64	Stahl-Biskup, E. and Holthuijzen, J. 1995. Essential oil and glycosidally bound volatiles of lemon-scented thyme, Thymus x citriodorus (Pers.) Schreb. <i>Flav. & Fragr. J.</i> 10: 225-229.
Thymus zygis	Shoot	0.1	390.0	-0.14	De Cunha, A.P. and Salguiero, L.R. 1991. The Chemical Polymorphism of Thymus zygis ssp. <i>sylvestris</i> from Central Portugal. <i>J. Ess. Oil Res.</i> 3: 409-12.
Thymus vulgaris	Plant	5.0	45.0	-0.63	J. Ethnopharmacology, 39: 167.
Thymus capitatus	Shoot	--	9.0	-0.16	Biondi, D., Cianci, P., Geraci, C. and Ruberto, G. 1993. Antimicrobial Activity and Chemical Composition of Essential Oils from Sicilian Aromatic Plants. <i>Flav. & Fragr. J.</i> 8: 331-7.

saturejoides						Activity of the Essential Oils of Thymus broussonettii, T. zygis and T. saturejoides. J. Ess. Oil Res. 5: 45-53.
Thymus broussonettii	Shoot	--	--	-0.16		Tantaoui-Elaraki, A., Lattaoui, N., Errifi, A. and Benjlali, B. 1993. Composition and Antimicrobial Activity of the Essential Oils of Thymus broussonettii, T. zygis and T. saturejoides. J. Ess. Oil Res. 5: 45-53.
Thymus funkii	Shoot	--	1135.0	-0.11		Vila, R., et al. 1995. Composition and study of the variability of the essential oil of Thymus funkii Cousson. Flav. & Fragr. J. 10(6): 379-383.
Thymus zygis	Shoot	--	19.0	-0.16		Jimenez, J., Navarro, M.C., Montilla, M.P., Martin, A. and Martinez, A. 1993. Thymus zygis Oil: Its Effects on CCl4-Induced Hepatotoxicity and Free Radical Scavenger Activity. JE05: 153-8.
Thymus longicaulis	Shoot	--	3.0	-0.16		Baser, K.H.C., Ozek, T., Kirimer, N. and Tumen, G. 1993. The Occurrence of Three Chemotypes of Thymus longicaulis C. Presl subsp. longicaulis in the same Population. J. Ess. Oil Res. 5: 291-5.
Thymus orospedanus	Plant	--	718.0	-0.29		J. Nat. Prod.
Thymus capitatus	Plant	--	--			Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Thymus riatarum	Shoot	--	25.0	-0.16		Iglesias, J., Vila, R., Canigueral, S., Bellakdhar, and Il Idrissi, A. 1991. Analysis of the Essential Oil of Thymus riatarum. J. Ess. Oil Res. 3: 43-4.
Vitex agnus-castus	Leaf	--	--			Jim Duke's personal files.
Vitex agnus-castus	Fruit	80.0	800.0	0.66		Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin.
Vitex agnus-castus	Flower	--	--			Jim Duke's personal files.
Zingiber officinale	Rhizome	1.0	60.0			Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
Zingiber officinale	Rhizome Essent. Oil	--	1200.0	1.0	*	